AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1. (Currently Amended) Method for manufacturing a patient-specific implant, comprising:

obtaining medical two-dimensional image data of a defect area in a patient requiring an implant and an environment thereof for a patient by a method selected from the group consisting of computer tomography (CT) and nuclear magnetic resonance (NMR) tomography;

using a mathematical image processing algorithm to form a surface using the two-dimensional image data;

performing a segmentation to detect bones and hard tissue ranges;

generating a virtual three-dimensional model from the image data of at least the patient's defect area in the patient requiring an implant area and the environment thereof[[,]] ;

comparing the virtual three-dimensional model to real medical reference data[[,]] ;

selecting from the real medical reference data a set of said reference data best suited for the patient and forming a three-dimensional reference model object

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therefrom, the step of selecting the set of said reference data best suited for the patient and forming a reference model object therefrom comprising:

first selecting a plurality of sets of the reference data and forming a corresponding plurality of three-dimensional reference model objects therefrom most resembling the patient considering mathematical, functional, medical and aesthetic parameters[[,]] ; and

then selecting one of said plurality of three-dimensional reference model objects best suited for the patient[[,]] ;

generating a virtual implant model from said selected one of said plurality of three-dimensional reference model objects by superimposing said selected one of said plurality of three-dimensional reference model objects with the virtual three-dimensional model[[,]] ; and

manufacturing the implant by computer numeric control based on data from the virtual implant model.

2. (Previously Presented) Method as claimed in claim 1, wherein the real medical reference data comprise a database.

3. (Canceled)

4. (Previously Presented) Method as claimed in claim 1 or 2, wherein the real medical reference data comprises data from the patient.

5. (Canceled)

6. (Canceled)

7. (Previously Presented) Method as claimed in claim 1, wherein the virtual implant model is a three-dimensional virtual implant model.

8. (Previously Presented) Method as claimed in claim 1, wherein the selection of one of said plurality of three-dimensional reference model objects best suited for the patient is made in consideration of an expert medical opinion.

9. (Currently Amended) Method for manufacturing a patient-specific implant, comprising:

obtaining medical two-dimensional image data of a defect area in a patient requiring an implant and an environment thereof for a patient by a method selected from the group consisting of computer tomography (CT) and nuclear magnetic resonance (NMR) tomography;

using a mathematical image processing algorithm to form a surface using the two-dimensional image data;

performing a segmentation to detect bones and hard tissue ranges;

generating a virtual three-dimensional model from the image data of at least the ~~patient's~~ defect area in the patient requiring an implant ~~area~~ and the environment thereof[[,]] ;

comparing the virtual three-dimensional model to real medical reference data[[,]] ;

selecting from the real medical reference data a set of said reference data best suited for the patient and forming a three-dimensional reference model object therefrom, the step of selecting the set of said reference data best suited for the patient and forming a reference model object therefrom comprising:

first selecting a plurality of three-dimensional reference model objects similar to the virtual three-dimensional model considering mathematical, functional, medical and aesthetic parameters[[,]] ; and

then selecting one of said plurality of three-dimensional reference model objects best suited for the patient[[,]] ;

generating a virtual implant model from said selected one of said plurality of three-dimensional reference model objects by superimposing said selected one

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of said plurality of three-dimensional reference model objects with the virtual three-

dimensional model[[,]] ; and

     manufacturing the implant by computer numeric control based on data from

the virtual implant model.

10.   (Previously Presented)   Method as claimed in claim 9, wherein the real

medical reference data comprise a database.

11. (Previously Presented) Method as claimed in claim 9, wherein the real medical

reference data comprises data from the patient.

12. (Previously Presented) Method as claimed in claim 9, wherein the virtual

implant model is a three-dimensional virtual implant model.

13. (Previously Presented) Method as claimed in claim 9, wherein the selection of

one of said plurality of three-dimensional reference model objects best suited for

the patient is made in consideration of an expert medical opinion.